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CR-133339

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Southern Region, Oklahoma-Texas Area  
Big Spring Field Station  
P. O. Box 909  
Big Spring, Texas 79606

N73-27304

(E73-10834) WIND EROSION OF SOILS  
Progress Report, 17 Mar. - 17 Jul. 1973  
(Agricultural Research Service, Big) 3 p  
HC \$3.00 CSCL 08M

Unclas  
G3/13 00834

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RE: TYPE I Report, period March 17, 1973, to July 17, 1973;  
NASA Control Number Y-44-091-001; Goddard ID: AG 337

Gentlemen:

A type I report for the referenced task, contract, investigation, and  
time period is attached in fulfillment of contract provisions.

The RB-57 flight on April 28 produced some excellent photos of two  
large sand dune covered areas in West Texas and New Mexico. Erosion  
along the Texas-New Mexico border was severe in April 1973. The  
satellite data should reveal the change in eroded areas during the  
spring of 1973.

Sincerely,

*Donald W. Fryrear*

Donald W. Fryrear, P.I., AG 337  
(Wind Erosion of Soils)

cc:

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Title of Investigation: Wind Erosion of Soils

GSFC ID: AG 337

Objectives of the Contract:

To locate wind erosion sites in West Texas and to develop the technology necessary to inventory the extent and spread of wind erosion.

Chronology of Important Events Associated With the Contract:

An RB-57F flight was made on April 28. Cloud conditions were excellent. Imagery was received on June 13, 1973. The data received are summarized in Table 1.

Statement of Problems in the Report Period:

There was a little breakdown in communication on the 57 flight. I understood we would be notified if the flight was made. Four weeks later we received the imagery. This did destroy our timing on getting the ground truth data because I was not notified of the flight.

We requested color prints of; roll 9, frames 46 to 53; roll 10, frames 42 to 49; roll 11, frames 53 to 64, 75 to 80, 113 to 117, and 35 to 45. We requested these through Bill Reeves, but he called saying we need to make the request through Mr. Stonesifer.

Summary of Work Performed this Reporting Period:

A manuscript has been prepared and presented to the American Society of Agricultural Engineers. After the manuscript has been approved, it will be made available to ASAE for publication.

The transparencies received have been checked and catalogued.

Work Plan of Period July 17 to September 17:

The first of September, D. W. Fryrear will schedule a trip to Weslaco to view the CCT and to use the image enhancement technique on selected transparency frames.

Table 1. ERTS 1 orbit date, date data were received, cloud cover, and image quality over the Big Spring test site.

Orbit Date	Orbit Number	Data Received	Cloud Cover	Sun Elevation	MSS 4567
March 20	3346	May 16	50	46.4	GGGG
March 21	3347	April 19	10	46.7	GGGG
April 7	3537	July 5	0	52.6	GGGG
April 8	3611	July 5	20	52.9	GGGG
April 25	3848	June 5	30	57.8	GGGG
April 26	3862	June 27	50	58.0	GGGG
April 28	RB-57 flight				
May 13	4099	Not received	90	61.4	GGGG
May 14	4113	Not received			
May 31	4350	Not received			
June 1	4364	Not received			
June 13	Transparencies from RB-57 flight				
June 18	4601	July 25			
June 19	4615	July 25			